

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-2. (canceled).

3. (currently amended) A process for producing β -manganese dioxide or γ - β -manganese dioxide with a sodium content of 0.05 to 0.2% by weight for lithium primary batteries, the process consisting essentially of the steps of neutralizing electrolytic manganese dioxide with an aqueous solution containing 2.0 to 5.0g of sodium hydroxide per kg of manganese dioxide and then heating firing the neutralized manganese dioxide to produce β -manganese dioxide or γ - β -manganese dioxide having a sodium content of 0.05 to 0.2% by weight.

4. (currently amended) The process for producing β -manganese dioxide or γ - β -manganese dioxide for lithium primary batteries according to claim 3, wherein said electrolytic manganese dioxide has a phosphorus content of 0.05 to 2.0% by weight.

5-10. (canceled).

11. (new) β -manganese dioxide or γ - β -manganese dioxide as a cathode active material for lithium primary batteries which

is obtained by firing the soda neutralized electrolytic manganese dioxide and has a sodium content of 0.1 to 0.2% by weight.

12. (new) β -manganese dioxide or γ - β -manganese dioxide according to claim 11, which has a phosphorus content of 0.05 to 2.0% by weight.
